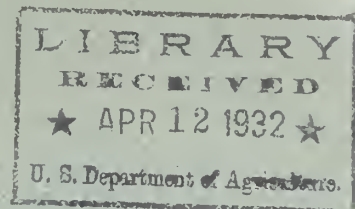


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HOW TO GROW BIG DAHLIAS

Downs dahlia forms

M. J.

How To Grow Big Dahlias

THE preparation of the soil is the first important step in growing big Dahlias, for it has great effect upon results. The ideal winter treatment would be to have a good thick coat of stable manure (cow preferred) spread over the garden in the fall and left there all winter—to be plowed under in the early spring. In addition to adding plant food, the fibrous nature of manure improves the mechanical condition of the soil. If manure can not be broadcasted in the fall, it will be almost as beneficial if applied very early in the spring.

If manure is not obtainable, the next best thing is a cover crop. A cover crop is one that thrives during the winter, growing on plant food that would otherwise be leached from the soil before spring. When the cover crop is plowed under, this plant food is restored to the soil. Cover crops are sometimes called "green manures." Authorities tell us that a good cover crop turned under is equal to several tons of manure per acre.

We find rye is the best cover crop we can use for Dahlias because it is very hardy and can be planted after we have dug our roots in the fall. Sow it on top of the soil at the rate of two bushels per acre, then work it in with a rake or harrow it in if you are using a horse. It should be plowed under in the spring when only eight to twelve inches tall and still succulent—preferably when the ground is wet so the crop will quickly rot and become plant food.

As another substitute for manure, there are many who pile grass clippings, leaves, and other vegetable matter into a compost; covering it with a thin layer of soil to hold in the heat and hasten decomposition. While this is only a substitute for the real thing, it will do nicely if chemical fertilizers are to be used later. When well rotted, it is spread over the ground and turned under the same as manure.

While the conditions suggested above are desirable for Dahlias, don't be discouraged if you do not have them. If your garden will grow good vegetables, it can be made to produce fine Dahlias—no matter if it has been as bare as a board all winter.

We do not recommend that Dahlias be planted in grass sod unless the sod was plowed under early during the preceding fall. Newly plowed sod is very hard to work. It contains an immense amount of fibrous matter, many weed seeds, and very often is infested with cut worms. If fall plowed, the fibrous matter has time to decay and become incorporated with the soil over winter. Pests and weed seeds, too, will be reduced by winter exposure. It should not be necessary to plow again in the spring.

Whether manured, cover cropped, or bare, spade up your garden (or have it plowed) as deeply as possible several weeks before planting time. Have it plowed if you can, for in spading much of the soil is simply moved instead of turned over. Then, too, if a cover crop is to be turned under it will be very hard to do a good job with a spade. Try to plow a little deeper than last time. Many soils are shallow, having only a thin layer of topsoil over hard subsoil that is difficult to plow. In that case, try to turn up about an inch of the hard subsoil.

Why? Because this subsoil needs only to be turned up and exposed to the sun and weather to become equal to, and part of, the top soil. By turning up an inch of new subsoil each year, your top soil will gradually become deeper. Every inch thus gained will result in one extra cubic foot of easily penetrated top soil in which the roots of each plant may feed—if the hills are three feet apart by four.

Shallow soils may also be deepened by removing the top soil from a long narrow strip of the garden, working well rotted manure into the subsoil thus exposed, and covering again—with the top soil from the adjoining narrow strip of ground. This process is repeated again and again until the desired space is covered. We don't recommend this method to any fan who does his own work.

If you did not have manure turned under in your garden, you will probably want to tone up the soil somewhat. About fifty pounds of bone meal broadcast over each thousand square feet of garden surface should start your Dahlias off nicely. Twice that amount will do no harm if the soil is very poor. The bone meal should be spread over the ground right after it is plowed—before the clods are broken up. While the soil is being smoothed the fertilizer will be thoroughly worked in. Dahlias should not be planted here within the next two weeks

—not even then on plots without irrigation unless a good rain falls during that time. A rain before planting will put the soil in the proper condition to work, and will also make the bone meal available to the young plants. Chemical fertilizer is useless without water.

Why do we recommend bone meal at this time? The main plant food derived from bone meal is phosphoric acid. This phosphoric acid is good for young plants, and makes them send their root systems more deeply into the soil—thus preparing them for the work to come later. While any well balanced garden fertilizer would help at this time, bone meal is to be preferred because of its twenty to thirty percent phosphoric acid content.



Sturdy bush growth



Showing how your Dahlia bush should appear if you follow these growing directions and trim your plant as shown by the diagram on page five. The height of your bush will vary, of course, with the variety. This is Tang, growing from four to five feet high. Note the depth of the blooms, the long strong stems. Other pictures of this variety will be found on page fifteen. Blooms of Tang actually swell in size after being cut and placed in water where it is cool and dark.



The distance apart your Dahlias are planted may vary with your supply of stock and the method you intend to use in cultivation. If your garden is large enough to use a horse in cultivating, your rows should be at least four feet apart. If a hand cultivator or a hoe is to be used, the rows need not be so widely separated. If your soil is rich, or if you intend to use plenty of fertilizer, it will be wise to leave plenty of room between the hills of the row. Many a beautiful bloom has been ruined by a branch from the adjoining hill rubbing against it in the wind. Our own Dahlias vary in the different fields from eighteen inches to three feet apart. Where we grow stock for roots alone, we plant them close together in the row; but where we intend to produce blooms we plant three feet apart.

Don't stand the root on end when you plant it. Place it on its side with the sprout turned upward just about in the place you want your hill to come up. Plant each root in the bottom of a hole about six inches deep. Or, if you are using a horse, place the roots where you want them in the bottom of a furrow six or seven inches deep and cover them with a hoe or drag. Dahlies may be planted a little deeper or not quite so deep without noticeable variation in results. Planting fairly deep, however, insures more moisture than would be found nearer the surface. If you are setting out plants instead of roots, try to keep the ball of earth intact that is packed around the roots of each plant. Set each plant deep enough in the soil so that its roots will be a little deeper than they were in the paper pot in which it was packed. Give each plant about a quart of water when you set it out and keep it shaded during the hottest part of the next few days—unless you are fortunate enough to have cloudy weather or rain. In that case you will need shade only if the plant begins to wilt when the sun finally does come out. A peach basket turned up side down over the plant serves admirably to shade it. This is easy to put on and take off, admits light and air through its cracks, and acts as a wind break for the tender young plant. The basket should be weighted down to prevent blowing over and rolling on the plant.

If you are planting both roots and green plants, it would be a good idea to set out your green plants about two weeks before you plant your roots, that is, if you want both lots to be at their best about the same time. The reason is that the bush growing from a root will mature and bear blooms more quickly than the bush growing from a plant. Or it may be more desirable to you to plant them both together and have the Dahlias from plants coming on a little later.

There has been much controversy over plants versus roots, some claiming that roots are superior while others hold otherwise. We think their relative merit depends upon what is wanted. For big blooms, there is no question but what plants give every bit as good results as do hills grown from roots. The advantage of plants is that they cost only half as much as roots of the same variety—giving twice the number of

hills for the same money. On the other hand, if you want good clumps (clusters of roots) at digging time in addition to fine blooms, the roots will turn out best if they are planted at the same time as the plants.

The principle objection to plants is that their root increase is not dependable. A Dahlia plant may grow into a fine bush bearing excellent blooms, and yet produce no tubers, if it was not rooted properly as a cutting. All Dahlia cuttings should be rooted at the nodes, or joints, if they are to produce good tubers. If you are not sure your cuttings were properly taken, it is well to plant them an inch deeper in the soil than they were in the pots in which they came. This insures at least one joint being deep enough in the soil to make good roots that will have eyes. Every plant we sell is grown from the proper kind of cutting.

It has been our experience that plants of most varieties will grow almost as nice clumps as roots provided they are planted earlier. Our very best clumps last fall were from green plants set out early. Why does it take plants longer to mature? Probably because the green plant has been taken from its mother root (as a cutting) at a very early age and is fending for itself; while a hill growing from a root is supplied by that root with most of the food it requires.

There are times when this tendency of the root to feed the hill is a hindrance rather than an advantage—for instance, when the root is a very big one. In this case the root is able to feed the hill until it is a foot or two high. By that time the root that was planted has itself thrown out feed roots and is drawing nutrition from the soil. It goes right on feeding the hill through its own root system. The hill has no need to throw out roots of its own, and as a result, there will be found no clump of new roots when the hill is dug. Only the old tuber remains—a little larger than when planted—with a few feed roots. Often this old root, or mother tuber, shows an eye and could be planted again the next season if necessary. If this is done, how-

ever, it should be cut in half to discourage its ambition to do all the work itself. That will force it to throw out roots near the stem end and result in a much better clump the next season. Cutting the ends off of roots that are too big does not harm them if the wound is dusted in sulphur. Damage will rarely result even without sulphur if the root is planted at once after being cut.

So, in spite of the fact that a great many people prefer and ask for large roots, the ones not so big are better—and a lot more likely to give a good crop increase.

The best time to plant Dahlias varies, of course, with the locality. Here in the southern part of New Jersey we expect our best blooms from stock planted about the first of June—though we plant Dahlias from the first of May until the Fourth of July. Dahlias planted after that date are usually cut down by frost before they have borne many blooms. Our Dahlias start to bloom in about a hundred days from planting time. Remember that the Dahlia is a fall blooming flower and likes cool weather. If planted too early it is likely to bloom itself out weeks before it should be at its best.

Darwin's Theory

"The Survival of the Fittest" — is peculiarly applicable in growing big Dahlias. Only the fittest stalk should be allowed to grow from the root; only the fittest branches to develop; and only the few fittest buds to bloom. Only the fittest seedlings should be saved; and only the fittest varieties continued. Adherence to these rules is responsible for the amazing development of the dahlia within the past few years.



The end of a branch not yet disbudded. See picture below.

It won't be so very long after they are planted that your plants will be a foot or so high. Before that time a stake should be driven at each hill, to which the plant will later be tied. The stakes we use are about one inch square by four feet long, pointed on one end so they will drive easily. Oak stakes are very durable and they stand the pounding without splintering while being driven. The country saw mill is a good place to get such stakes. If you have Dahlia growing friends you could combine your order with theirs to get the better price on a larger quantity. If sheltered in the winter they will last for years. Many growers drive their stakes when they plant their Dahlias. Sometimes two hills are planted very close together and tied to one stake that has been driven between them. However, we don't drive our stakes until the plant is nearly ready to tie up—because the stakes are in our way during the several cultivations the plant receives before that time. The stake should be driven about six inches from the stalk. We have never known of a Dahlia hill being damaged by the stake when driven at the time recommended.

When the young plant is tall enough (from twelve to eighteen inches) it should be tied to the stake about half way up its height. Care should be taken to do this loosely enough to let the stalk grow, yet tight enough to support it in case of a heavy wind or storm. We use binder twine for tying, though many like raffia. Whatever you use should be strong, though soft enough not to cut the stalk. Strips of thin cloth would do.

By the time the plant has grown another foot or foot and a half, its supporting string will be so low in comparison with its height that the plant would probably be blown over in a storm. So it should again be tied—higher up. You may find that three tyings are all that are necessary to hold up your plants. No matter how many are necessary, the work should not be neglected; for a rain soaked bush loaded with blooms

is very top heavy and easily blown over if not given support. If an untied branch does blow over, or is broken down by its own weight when wet, by all means cut it off at the base. It can never amount to anything thereafter; and its loss will simply mean more nourishment for that part of the bush remaining.

While your bushes are still small you must decide whether you want just a few Dahlias of the largest possible size; more flowers slightly smaller; or a great many blooms regardless of size—and begin to train your bush accordingly by pruning.

When roots are planted, more than one shoot may come up from each tuber. If that happens, let only the best one survive and cut out the others. When green plants are set out, no more than one shoot will develop. That is probably one reason some folks insist that plants will give nicer blooms than roots.

If allowed to grow naturally, this shoot will become the main stalk of the bush—finally to bear flowers on its very tip top. As it grows upward, other shoots, or branches, will be developed at every joint. These side branches are called laterals; and they too will produce blooms eventually. But as they grow these laterals will push out secondary laterals from their own joints—also to bloom later. So you see, if not pruned the bush will produce a great many Dahlias. They will be small, have short stems, and be generally unsatisfactory.

Then, there is the opposite extreme. By removing the laterals from the single stalk as it grows upward, you can concentrate the whole bush on the production of the one bloom on top. That bloom will usually be immense—though the centers of such blooms are not always perfect. This method is not altogether satisfactory. Not only does it cut down the number of blooms per plant to one; but it produces



This is the same branch shown above with the undesirable buds removed to force nutriment into the remaining bud, producing a large flower. See text for fuller details about disbudding.

that one too early—during weather too warm for Dahlias—unless it is grown on a late planted bush. If you are bent on this method in order to produce your very largest blooms for a certain date, experiments alone will show you the best time to plant in your locality. You will probably find it to be between the middle and the last of June.

Probably the best course to follow is half way between the two extremes described above. At least a half dozen blooms can be produced that are very little smaller than as if only one had been grown on the bush. Many varieties will produce a dozen or more flowers that are all large. The number of blooms will depend on the number of lateral branches you allow to grow. The best laterals are those that shoot up from near the bottom of the main stalk—for they give you the blooms with the longest stems. You can pinch out the center stalk above the bottom two or three lateral branches if you wish. This will force the laterals to bloom more quickly. If you want the center stalk to bloom, pinch out all but the bottom two or three laterals—in which case the laterals will usually make no attempt to bloom until the center stalk has done so. As each lateral branch grows, remove the secondary laterals it will produce at each joint. This will give you a fine bloom on a splendid stem for every lateral allowed to develop from the base of the plant. If you want more than these few blooms, let more laterals grow. The lowest secondary laterals may also bloom if they are allowed to remain on the lateral branches. In this way the number of flowers on the bush can be regulated, to the great advantage of those allowed to remain.

The drawing on this page may give a better idea of the principle of disbranching; which is simply to remove all except the few branches that promise the finest flowers on the best stems. The leaves of the bush have been omitted to show the lateral branches and the secondary laterals that may be allowed to remain. The plant trimmed as shown in the drawing should produce ten fine blooms if soil and weather conditions are right.

Disbudding follows the same idea as disbranching, though it calls for the removal of undesirable buds instead of branches. Again, only the fittest should survive. At the top of each branch the buds will form—usually in clusters of three. The center one of these three buds is called the terminal bud. It is the end of the branch. Two other buds will appear—one on each side of the terminal bud. These are known as the lateral buds. The two lateral buds should be removed, as well as any other buds or shoots that may appear from the leaf joints immediately below. That will leave only the terminal bud on the tip of each branch. If this appears to have been stung or maimed in any way, the best lateral bud may be saved and the weak terminal pinched out instead, along with the other lateral bud. This concentrates the plant food intended for several buds into the one you have selected to remain—naturally increasing its size.

The difference between disbudding and disbranching is that the former starts from the top, removing buds and small shoots downward; while the latter starts at the base and

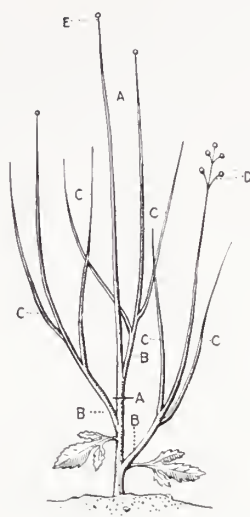


Diagram of bush shorn of leaves to show (A) main stalk, (B) laterals; and (C) secondary laterals. Had the main stalk been cut off where the line crosses it, the remaining laterals and their branches would have developed into even finer blooms. (E) shows the tip of each stalk after unnecessary buds (D) have been removed. See the text for more details.

works upward, removing branches. Both guide nourishment from the whole plant into the few remaining buds.

The time will vary with the variety and the weather, but you can expect a Dahlia to be in bloom in about three to four weeks after the bud was first formed. Do not remove buds while they are very young and cramped closely together. Wait until they are larger and well separated—about as big as a pea. We believe that many a bud is stunted by too early disbudding, probably because of an over abundance of plant food while too young to use it. Care should be used in removing either branches or buds. In the early morning, while filled with water, the buds and smaller branches may be easily snapped off with a quick downward jerk. Later in the day, when they are more dry and less brittle, a knife should be used to cut them. Unless cut or broken off clean, a string of the “bark” may be stripped from the stalk. This often hinders the flow of plant food to the bloom above and results in a lop sided flower.

Some short jointed varieties like to throw out numerous laterals from the base of the plant so late in the season they can not possibly bloom before frost. These should be cut out, for the plant food they require is wasted.

The proper use of fertilizer is another important step in growing big Dahlias. As recommended earlier, we think good cow manure, broadcasted in the fall, is the very best thing for the soil. But that is becoming more scarce every year, and most of us must resort to the use of chemicals as a substitute.

Already we have mentioned bone meal for use before planting if the soil is not known to be good. If this was not done, spread a good handful of the 4-8-8 (or similar fertilizer) later around each hill—not closer than six inches—when the plant is from twelve to fifteen inches high. After that time we use nothing on our own fields until just before the first buds appear. Fertilizer applied early, results in a more rugged and tall bush growth, but it is of very little help to the size of blooms. We have seen ordinary sized Dahlias on bushes so tall it was necessary to pick the flowers from a step ladder—grown with an immense amount of fertilizer at planting time and none thereafter. On the other hand, we have known very mediocre bushes on poor soil to produce fine flowers when fertilizer was applied just before blooming time. If water is present in the soil, chemical fertilizers quickly become useable to the plant. For that reason, they should always be applied before a rain or after one, when the soil is damp. Not only does this hasten the use of the fertilizer, but it reduces the likelihood of harm to the plant if the chemicals are too strong. Because of the quick but not lasting results from this commercial fertilizer, it should be applied often but in small quantities. The very best



Showing where the shoots should be taken off as explained in the text.

[CONTINUED ON PAGE 22]



PLEASE READ: As you look through these pages you may notice that we practice as well as preach the theory that only the "fittest" in Dahlias should survive. Our list of varieties is kept comparatively small by constantly culling out those Dahlias that WERE top-notchers and adding those that ARE. We aim to offer only those kinds we think are really best; rather than all the good varieties. You will notice that, with few exceptions, our newly added varieties are those that have "made" the Honor Roll for the second consecutive season—thus making doubly sure that they deserve it.

You may also notice that, although our catalog is somewhat larger than last year, we have economized by omitting expensive colored pictures. We have also lowered our cost of growing by developing a tractor-powered planting machine that does the work of many men. These savings, and others, we pass on to you in much lower prices and a 25% discount on orders (except collections) amounting to \$12.50 or more. This year we offer green plants of nearly every variety on our list—for plants afford a saving of one-half to anyone who will give them the slight extra care (shading) they may require during the hottest part of the first few days. We can get them to you in good growing condition. See our proposition at the bottom of page 12. We guarantee both our plants and our roots to arrive in good shape, to grow, to bloom and to give you entire satisfaction.

ACHIEVEMENT. (Ballay.) We are glad to lead off with this variety—one of the very best. A "gold" Dahlia with bronze shadings. In form it is a monster semi-cactus with plenty of depth as well as diameter. The petals are curled and twisted in an artistic fashion, and their substance insures long-lasting blooms in almost any weather. Stems are long and strong. This splendid variety was named in honor of the Achievement Medal it won in 1930 as the best new introduction West of the Rocky Mountains, and it has since been grown with equal success in the East.

Plants only, \$5.00



A friend and neighbor in one of our seedling varieties. Note the size and number of blooms, on low bushes that require no stakes. Grown with no irrigation and little disbudding.

ALBERT H. VESTAL. (Eastman.) We didn't have much luck with this last year; but our season was exceptionally dry, and we hold it was no fault of the variety. We have seen it bloom beautifully, with curled and twisted petals of glowing old rose held erect on excellent stems over a rather tall bush. **Plants only, \$1.25**

AMBASSADOR. (Broomall.) This variety is comparatively an old-timer; but it still deserves a place in every garden. At one time it sold for \$50.00 per root. It is an immense semi-cactus, peaches and cream in color—mostly cream. It can be grown to sensational size. Was a Roll of Honor Dahlia. **Roots, \$.75**

ANDREA ERICSON. (Fisher & Masson.) The introducers call this "the whitest of all white Dahlias." It is an informal decorative, with pointed and slightly twisted tips that give the huge flower a fluffy appearance. It is an early and free bloomer with dark insect-resisting foliage that holds the bloom upright on excellent stems. **Plants only, \$3.75**

A. O. KENNY. (Darling.) Large formal decorative flowers of perfect form and great depth, carried on good stems. The color is a rich bronze buff shade of one tone, with the center tinted bronze. An excellent all-round variety, and a prolific bloomer.

Roots, \$2.50

AVALON. (Broomall.) Grown with almost no attention last year—and no fertilizer whatever—this canary-yellow decorative surprised us with lots of blooms over eight inches across them.

Roots, \$.50

AZTEC GLORY. (Broomall-Success.) One lady, passing through our field, found this variety. "Oh, look," she called to her husband, "here's a whole dish of cole slaw." It was a very apt description, for the immense bloom is made up of a multitude of narrow petals—rich, clear, golden-yellow, without tints or blends. The flower is held erect on an excellent stem, but the bush is not very tall.

Plants, \$1.00; Roots, \$2.00

BAGDAD. (Redfern.) Here is a good red Dahlia! On the Honor Roll, it was described as "A flaming, scarlet red at last, and never in any Dahlia have we seen such vivid color. A tall, sturdy grower with ideal blooming habits.Laughs at the sunshine without worrying about fading. Look out for this one." **Plants, \$3.75**

BARBARA REDFERN. (Redfern.) A beautiful blending of old rose and old gold. The blooms are large and are held on fine stems over a husky bush. In type it is a formal decorative, with good size, depth and substance. A Roll of Honor Dahlia.

Plants, \$.75

BETTY IVINS. (F. & M.) A very large, full-petaled flower of rich salmon color, overlaid with amber and showing a rosy-pink reverse. The stems are good, though the bush is of only medium height.

Plants, \$1.75; Roots, \$3.50

BONNIE BRAE. An enormous formal decorative, so large its wiry stem cannot hold it erect. The broad flat petals are the color of cream, with pink shadings. An exceptionally prolific bloomer.

Roots, \$.35

DOWNS DAHLIA FARMS
 CLAYTON, NEW JERSEY

Name _____

City or Town _____ State _____

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CUT OFF ON DOTTED LINE



HOW TO ORDER

The order blank was placed on the other side to make ordering easy—but if you'd rather write a letter, by all means do so.

Write it on the blank somewhere if you want your Dahlias shipped on a certain date. We will obey if possible. If you specify no date, shipment will be made when the proper planting time arrives.

Send money to pay for your order in any way convenient — check, money order, or even stamps if you like. But please don't send stamps or cash unless you send your letter by registered mail. The risk is too great.

If your order is small, the very best way to order is to combine with a friend or neighbor to make the total up to \$12.50 or more. We give a 25% discount from our catalog prices on orders of that size except on collections.

All retail orders are shipped prepaid either by express or parcel post—which ever seems best considering size of package and distance.

As explained at the bottom of page 16, we'll be glad to donate a prize award for the annual Show of any Dahlia Society or Garden Club to which many of our customers belong. Will you favor us—and possibly your Club—by filling in the lines just below when you order?

Name of Society _____

Secretary's Name

Secretary's Address

☐ If you have ordered either of Collections No. 1; No. 2, or No. 3, and wish to take advantage of the proposition we make at the bottom of page 12, just mark an X in the square to the left. If the square is not so marked, we will understand that you do not desire the substitution of a root for one of the plants. We reserve the right to refuse any plant order and refund your money if we believe safe delivery is improbable.

Collection No. 4 (See page 21) is one of the greatest values in our catalog. All our Dahlias—either roots or plants—are guaranteed to arrive safely, to grow, to bloom, to be true to name and to be satisfactory to you in every way.

If you ever bought anything from us that was NOT satisfactory, will you use the space below to tell us just what was wrong? On the other hand, if our stock has pleased you will you send us the names and addresses of a few friends who grow Dahlias?



Showing the inside of a greenhouse in which we produce many thousands of strong healthy green Dahlia plants every season. The screen at the top is to protect them from insects without hampering the ventilating apparatus. Note the three layers of plants—under the benches; on the benches and on a rack above the benches. Inset shows the sturdy "baby bushes" being made ready to pack as pictured on page 13.

BUCKEYE BRIDE. (Roberts-Peck.) Rich clear, geranium-pink—a color unusual in Dahlias. The bush is not tall, but carries heavy insect-resisting foliage and bears the large flowers profusely on excellent stems. The blooms keep well and have exceptional merit as cut flowers. **Plants, \$2.00; Roots, \$4.00**

CHAMPOEG. (Crites-Kemp.) Waxy canary yellow shading evenly to salmon pink—a pink that deepens as the weather grows cooler in the fall. The large blooms are informal decorative in type and are borne very freely. Bush is very sturdy, it blooms early, and the stems are fine. This is an exceptionally beautiful Dahlia, a good keeper, and one that should be in your garden. **Plants, \$5.00**

CITY OF TRENTON. (Prentiss.) An immense full-centered formal decorative in the bronzy autumn colors—a rich glowing buff with a darker reverse to the petals. It is a splendid grower on a tall bush, with stems that are stiff and straight with heavy dark green foliage. **Plants, \$1.00; Roots, \$2.00**

DERRILL W. HART. (Broomall-Success.) A large and well-formed informal decorative in real autumn coloring that is hard to describe. Coppery shades, henna and brown. A Roll of Honor Dahlia that is giving excellent results everywhere. **Plants, \$1.50; Roots, \$3.00**

DOROTHY STONE. (F. & M.) A huge informal decorative in a true deep shade of pink; with a very full center and great substance to the petals. A prolific bloomer, with the flowers held on straight strong stems well above the dark and leathery foliage. A Roll of Honor Dahlia. **Plants only, \$1.75**

DWIGHT W. MORROW. (Dahliadel.) Gigantic size and rich red color combined to make this spectacular Dahlia much admired at the Atlantic City Show, where it won as the best informal decorative seedling in 1930. Another Roll of Honor Dahlia. **Plants, \$5.00; Roots, \$10.00**

EAGLE ROCK WONDER. (Success-Broomall.) This is a gigantic semi-cactus in the orange and orange-buff shades, with tints of coral-pink and coral-red. It is a profuse bloomer, with the enormous flowers held erect on strong stems—and every one of them holds its full center to the end of the season. A Roll of Honor Dahlia. **Plants, \$3.75**

EDITH EASTBURN SIMON. (Peacock.) Ruffled, twisted and whorled petals—creamy pink at the center, deepening to orchid pink on the outside, blending lighter toward the tips. An exquisite Dahlia, verging between informal decorative and semi-cactus types. Large flowers that bloom early and profusely—long slender stems hold it well above the foliage of a semi-dwarf bush. **Plants, \$5.00**



Blooms picked for market. These were produced without irrigation or commercial fertilizer of any kind, though the soil was broadcasted with cow manure the previous fall. Disbudded but once. While these varieties can be grown much larger, we think they look pretty good considering the two long, hot dry periods (one was four weeks and five days without rain) they had survived. The truck body is seventy-nine inches across, inside—giving you an idea of the fair size of the flowers.

SPECIAL OFFER: One plant each of six varieties in the truck—Mrs. A. B. Seal, Waldheim Sunshine, Monmouth Champion, Ida Perkins, The World, and Glory of Monmouth—for \$5.00. Every one a different color. This is an \$8.75 value at our regular catalog prices. Ask for Collection No. 1. See our plant proposition at the bottom of Page 12.

EDNA FERBER. (F. & M.) One of the most easy-to-grow Dahlias. It is a semi-cactus of huge size, with petals that curl and twist to make a very full flower. In color, a glistening coral shading to old gold at the base of the petals. Its stem, habit and foliage are excellent, and it has been a great prize winner. A Roll of Honor Dahlia and one we strongly recommend. See picture at the top of page 12.
Plants, \$.75; Roots, \$1.50

ELIZA LONDON SHEPARD. (Peacock.) A clear, rich orange-gold informal decorative—the reflex a deeper shade of the same color. The blooms have plenty of substance and keep well. The bush is strong and vigorous, holding the flowers from facing to upright on long stiff stems. Another Roll of Honor Dahlia.
Plants, \$2.50; Roots, \$5.00

EMMA MARIE. (Dahliadel.) Clear pink of lovely shade, around a creamy-white center. A deep, full flower of the semi-cactus type. Blooms are borne freely on a robust bush, and their stems are good. Fine substance and keeping qualities make it a good cut flower. Was a Roll of Honor Dahlia. Plants, \$.50; Roots, \$.75

ESTHER DEAN BROWNING. (Peacock.) For garden or cut flowers this is a fine pink—shrimp pink tinting lighter toward the center. Semi-cactus in type, always full, with straight, stiff stems. An extremely prolific bloomer on a medium tall bush.
Roots, \$2.00

F. J. MARCH. (Bessie Boston.) Beautiful silvery lavender—one of the best late introductions from California. A free blooming variety, and the stems are very good.
Plants, \$5.00

FORT MONMOUTH. (Kemp.) A great big long-petaled informal decorative of spectacular rich claret. Though of unusually bright red, the petals never burn. An immense Dahlia of wonderful formation, held on a stiff stem over a tall and vigorous bush. Another Roll of Honor Dahlia. Plants, \$1.25; Roots, \$2.50

FORT WASHINGTON. (Rindfleisch.) A formal decorative of dark mahogany-red—the largest Dahlia of this color known. The bush, too, is strong and robust, and the stems are stiff and straight. A good exhibition variety—and a Roll of Honor Dahlia.
Plants, \$.75

Twenty-five Percent Discount From Catalog Prices (Except Collections) On Orders Amounting To \$12.50 Or More



FRAU O. BRACHT. (Berger.) This European importation has won many prizes in this country—a straight petaled cactus of clear primrose yellow. The full centered flowers are beautifully formed and borne erect on stiff slender stems. It is a free blooming variety and fine for either garden, exhibition or cutting.

Plants, \$1.50

FRAZIER. (Peacock.) A formal decorative of rich glowing oriental red, tipped with yellow, with yellow at the base of each petal. It is dwarf in habit, with thick leathery foliage and good stems. Keeps well and makes an excellent cut-flower.

Plants, \$1.50; Roots, \$3.00

F. W. FELLOWS. (Stredwick.) This beauty of orange-scarlet is larger than many a newer and better known cactus Dahlia. Its long tightly twisted petals are incurved over a perfect center.

Roots, \$.50

GLORY OF MONMOUTH. (Kemp.) For beauty in a growing plant, this variety has few equals. The plant is just tall enough; the stems are perfect—and each is topped (umbrella fashion) with a formal decorative bloom blending from light orange to shades of strawberry-pink. Not a large Dahlia, but for general satisfaction it is hard to beat.

Plants, \$.50; Roots \$1.00

GRAF ZEPPELIN. (Nolet.) A formal decorative of pure white flowers borne freely, with good stems almost too long, on a tall bush that requires no pruning. It was Certified at Storrs and is a Roll of Honor Dahlia. See picture on page 19.

Plants, \$2.50; Roots, \$.50

HARRY MAYER. (Success.) Beautiful silvery-pink, with a deeper rose-pink reverse—a formal decorative that can be grown to immense size for exhibition. The stems are good and the foliage dark and vigorous. Bush is not very tall and seldom requires staking. See picture on page 13.

Plants, \$.50; Roots, \$1.00

HELEN IVINS. (F. & M.) An informal decorative of orchid-lavender. It begins to bloom early and holds its color throughout the season. Blooms very freely, has good stems and tough leathery foliage. Another Roll of Honor Dahlia that is giving great satisfaction.

Plants only, \$1.50

IDA PERKINS. (Montrose-Perkins.) A pure white formal decorative; finely formed and with a substance of petal that gives it long lasting qualities when cut. Upright and sturdy, it is one of the best of whites. An Achievement Medal winner and a Roll of Honor Dahlia.

Plants, \$.75; Roots, \$1.50

IMPERIAL PINK. (Lyndora.) A beautiful rose-pink Dahlia with shadings of primrose and silver. The flowers are immense and massive—yet graceful and artistic. As an undisseeded seedling it won in 1930 at the shows of both the Pennsylvania Horticultural Society and the Camden Dahlia Society.

Plants, \$.50



Soil was washed away from this plant to show the tubers already started. When you order our plants, however, you receive them in little paper pots, still growing, in plenty of soil.

DOWN'S DAHLIA FARMS,
CLAYTON, N. J.

SAN DIEGO, CALIF., AUG. 24, 1931

DEAR SIR:

No doubt you receive plenty of letters like this one, but still I thought it might interest you to know that at our big show here on Saturday and Sunday, I won the first for the one best bloom in the show, with a fine bloom of Jane Cowl, beating Regal, Ft. Monmouth and other well known varieties.

At the end of the second day the others were wilted, but Jane Cowl stood boldly upright, not seeming to know that the two days were the hottest since 1914. I also won first for the best display, and for the best seedling.

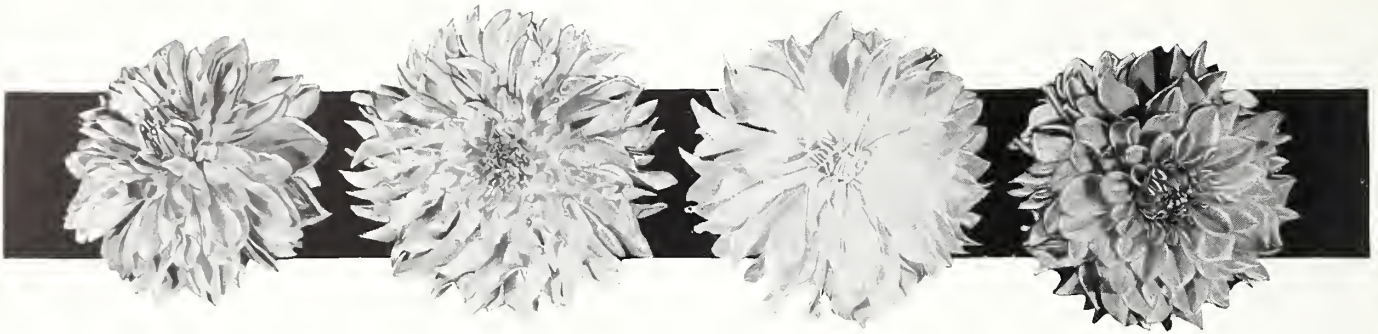
I think a whole lot of Jane Cowl and hope to greatly increase my next year's planting.

Yours sincerely,

H. LODGE



One of the fields without irrigation in which we produce strong stock that is kept healthy by thorough and constant culling.
None but the fit survive.



Four good Dahlias that can be easily grown to large size. In order they are Jersey's Beacon, Edna Ferber, King Midas and Treasure Island.

SPECIAL OFFER:

We will send one plant each of the above varieties, together with one each of Oriental Beauty (below) and Harry Mayer (to the right) for \$4.00. Six plants in all, carefully packed and prepaid. Ordered separately they would cost \$5.75. Ask for Collection No. 2. See our plant proposition below.

MR. O. DOWNS,
CLAYTON, N. J.
DEAR MR. DOWNS:

LAKE CITY, S. C., SEPT. 15, 1931

The Tang plant which I bought from you in April has developed into a bush of remarkable size, insect resisting, hardy and strong. I have cut seven gorgeous blooms of rare beauty. And prospects are bright for more than seven others. Tang is a glorious dahlia and deserves a place among the best in the world. When I tell you that I grow Eagle Rock Fantasy; Kathleen Norris; Jane Cowl; Fort Monmouth; Monmouth Champion; Eliza London Shepard; Dorothy Stone; King Midas; Mrs. Alfred B. Seal; Watchung Wonder, and others, you will know that I know what I am talking about when I say that Tang is a head-liner.

With best wishes I am,

Sincerely yours,
BENJ. L. KNIGHT



An example of the cactus. The variety is ORIENTAL BEAUTY—rich true pink in color. See page 15 for description

JANE COWL. (Downs Dahlia Farms.) The greatest Dahlia of them all—the Dahlia that has given greater satisfaction the country over and won more prizes than any other since it was introduced. See the picture on page 14 and description there. Also picture on page 21
Plants, \$.50; Roots, \$1.00

JEAN AARON. (Shorey.) A West Coast Dahlia of great merit. The blooms are of creamy yellow, with a pink tint on the edge of the petals. While the flower is somewhat flat, it can be grown to a ten-inch diameter without much trouble. A tall bush with a marvelous stem.
Plants, \$.175

JERSEY'S BEAUTY. (Waite.) Beautiful pink in color, with lovely formation, excellent stem and fine keeping qualities. This is the most popular pink cut-flower Dahlia in any market. A formal decorative with everything to commend it. **Roots, \$.50**

JERSEY'S BEACON. (Waite.) An informal decorative with Chinese scarlet petals that are rolled up lengthwise to show a paler reverse—giving an unusual two-toned effect. The flower is almost globular in form, and of very good size. See the picture at top of this page. **Roots, \$.50**

JENNY LIND. (Redfern.) A magnificent pink—a silvery pastel pink—on a tall, clean foliaged plant. Big blooms and a very strong growing variety. **Plants, \$.375**

JOSEPHINE G. (Grosscross.) Blooms of bright rose pink held high over a sturdy bush with strong dense foliage. It is a free-blooming informal decorative, an Honor Roll Dahlia, and a winner of the Certificate of Merit at Storrs. **Plants, \$2.50**

KARL BONAWITZ. (Dahliadel.) A semi-cactus of brilliant, velvety-carmine, with sufficient size to assert itself—while the form and color make it gracefully artistic. A good keeping variety, on a splendid bush with excellent stems. **Plants only, \$.375**

PROPOSITION: If you fear green plants will not reach you safely, we will send five plants and one root instead of the six plants in Collections No. 1, No. 2 or No. 3. In other words, we will take out one plant (our choice) and substitute a root of the same variety. No extra cost to you for this additional value. Then, if you're not satisfied with the plants when they arrive **KEEP THE ROOT**, water and repack the plants carefully and return them to us at once and the full amount you paid will be refunded. See reverse side of order blank. This is "safe arrival" insurance.

KATHLEEN NORRIS. (Klein-F. & M.) A great exhibition dahlia—the first to win the Achievement Medal at two shows. An immense bloom, informal decorative in type, true rose-pink in color—later deepening to mallow-pink. It is a many petaled, full centered flower of great depth, held on a perfect stem over a bush that, for us, does not grow very tall. It is a good bloomer, the flowers keep well—a commendable Dahlia in every respect. A Roll of Honor Dahlia. **Plants, \$2.00; Roots, \$4.00**

KEMP'S VIOLET WONDER. (Kemp.) Impressive blooms of rich violet, with an underlying tone of royal purple. An informal decorative of massive proportions, borne on strong stems well above the tall plant. This unusually beautiful variety has been Certified and was many times a winner. A Roll of Honor Dahlia. **Plants, \$1.25**

KING MIDAS. (Peacock.) The plant is not tall, but is strong and sturdy. It bears immense exhibition blooms of clear golden-yellow; beautiful full centered flowers on the best of stems. This informal decorative is one of the finest yellows we ever grew. A Roll of Honor Dahlia. Picture on page 12. **Plants, \$1.50; Roots, \$3.00**

MABEL S. DOUGLAS. (Thompson-Waite.) Clear pastel lavender. Very large—winner in many of the big-bloom classes last year. It is an informal decorative with a graceful curl to the long petals that makes it measure much larger than it looks. Roll of Honor Dahlia. The foliage and habit of growth are excellent. **Plants, \$2.50**

MARDI GRAS. (Diggle.) Deep Burgundy or American Beauty rose color—a beautiful shade. The bush is tall and rugged and holds the blooms on long stems well above the foliage. A bold bright flower that stands out. **Plants, \$1.25**

MARGARET WOODROW WILSON. (Sanhican.) A formal decorative of creamy-white, suffused pink, with a darker reflex to the petals. It blooms freely, the blooms are large, and the stems are good. It was a Roll of Honor Dahlia. **Roots, \$.75 each**

MARION BROOMALL. (Broomall.) From a center of white this big cactus blends into clear pink lilac, which lightens toward the tips of the long petals. The bush and the stems are good. **Plants, \$.50; Roots, \$1.00**



This is Harry Mayer—an example of the formal decorative type. Rich silvery pink in color, and can be grown to large size.

MARIPOSA. (Boston.) The incurved petals of this delightful semi-cactus are of delicate pink, often flushed violet and giving the effect of lavender. The medium large flowers are borne very freely over an excellent bush. The stems are straight and strong. **Roots, \$.50**

MARMION. (Mastick.) Immense blooms of golden-yellow, with a bronze suffusion and a deeper bronze in the full high center. It is one of the largest of the formal decoratives, with a rugged husky bush that may be classed with the best. While the stem is stiff and strong, it does not always hold the flower facing upward as much as we like. Nevertheless, it scored high when grown at the trial grounds and has won many prizes—for few Dahlias can be grown larger. It was a Roll of Honor Dahlia. **Plants, \$.50; Roots, \$1.00**

MARY ELLEN. (Loller.) A decorative similar in type to Mrs. I. deV. Warner, from which it is said to be a seedling. Violet rose, tending more toward pink than lavender. A clean cut flower on extra good stems, and fine for exhibition. A Roll of Honor Dahlia. **Plants, \$.375**

MARTHA KEMP. (Kemp.) Warm buff in color, shading to apricot-yellow. These informal decorative blooms are very deep and of fairly good size; borne on fine stems over a bush of great vigor. **Plants, \$.75; Roots, \$1.50**

MINNIE EASTMAN. (Eastman.) A semi-cactus of light flame color, with shadings of deep yellow. The rather tall bush is unusually husky, and produces its blooms in great profusion on long stiff stems. Roll of Honor Dahlia. **Plants only, \$1.25**

MONMOUTH CHAMPION. (Kemp.) A giant flower of brilliant, glistening, orange flame that has won many a prize from keen competition. A truly great Dahlia that made good everywhere in spite of the prolonged drought last summer. Its wide spreading bush of strong vigorous growth produces many immense blooms—each with a perfect stem. A Roll of Honor Dahlia. **Plants, \$2.50; Roots, \$5.00**



Moss packed cartons holding the plants are packed tightly in ventilated corrugated boxes for shipment. Long sticks brace each plant to its proper place in the box. We have shipped plants packed like this successfully all the way across the United States.



JANE COWL
(Our own origination)

Just imagine the ideal Dahlia bush—fairly tall, with vigorous, dark green, leather-thick foliage. Give it stems that are straight and strong, yet not clumsy. Then add monster blooms of glistening bronzy buff and salmon shades—blooms that will stop you every time you near them—and you have a mental picture of our own Jane Cowl. Jane Cowl is held on the stem just as it should be, looking at you and slightly up. Some blooms are even set squarely on top of the stem, umbrella fashion. The flowers are immense,

of the full-petalled decorative type, with just enough twist to the broad petals to add the touch of refinement. Since its sensational debut as a seedling, this Achievement Medal winner has proved itself to be one of the greatest Dahlias. If it has a fault, we have yet to find it. No variety ever won more prizes in such a short space of time, nor made more friends wherever Dahlias are grown. Many foreign countries are included in its triumphs.

Roots \$1.00 each; plants \$.50



Here are two pictures of *Tang*—our latest origination. Note the beautiful petal formation and the depth of the bloom. When fully out, the petals fold back all the way to the stem. Bright tawny orange flame in color. See picture of its bush on page two. Plants each \$5.00; roots \$10.00.

MRS. ALFRED B. SEAL. (Seal.) Out of the West comes this unusually beautiful informal decorative of pure rich glowing old rose. The deep blooms—large enough to exhibit—are held proudly over a superfine bush. Not another Dahlia in your garden is anything like its color.

Plants, \$2.50; Roots, \$5.00

MRS. ELINOR MARTIN. (Pelicano.) An informal decorative of mulberry-rose, with a reflex of violet. This is a very popular variety—a good grower, has a good stem, and blooms profusely.

Plants, \$.50

MRS. I. DE VER WARNER. (Marean.) A formal decorative remarkable for its purity of color—clear lilac rose. The plant is vigorous and prolific, bearing many large, long-keeping blooms on fine stems. Taken all around, it is one of the best Dahlias of low price. It was a Roll of Honor Dahlia.

Roots, \$.35 each

MR. ALEXANDER WALDIE. Peaches and cream colors similar to Bonnie Brae. It has a better stem than that variety, though it is not quite so large. A formal decorative.

Roots, \$.40 each

MY MARYLAND. (Downs Dahlia Farms.) This informal decorative has not been able to come through the last few trying seasons with success equal to its garden mate,

Jane Cowl. It is, nevertheless, a lovely thing in clear rich pink—each twisted petal daintily tipped with ivory. The bush, stem and carriage are good. It is an Achievement Medal winner, was certified at Storrs and is a Roll of Honor Dahlia.

Plants, \$1.25; Roots, \$2.50

OMAR KHAYYAM. (Stout-Dahliadel.) A wonderful soft color effect—Chinese red at the base of the petals, shading to a bright orange, and tipped lighter. Formal decorative type. A tall, healthy grower with strong foliage. Received one of the highest scores at Storrs in 1930. Roll of Honor.

Plants, \$3.75

ORIENTAL BEAUTY. (Barker.) An excellent incurved cactus of rich true pink—delectable in color and exquisite in form. This is one of those Dahlias we hope always to grow. The bush is strong and the stem is good, and even though the blooms are, with us, not borne profusely, we recommend it highly. A Roll of Honor Dahlia. See picture on page 12.

Plants, \$1.50; Roots, \$3.00

PANSY G. WHITE. (White.) A worthy novelty from Kentucky. Clear bright yellow. It is very free flowering, has a strong, tall rugged bush, and the stems are long and erect. The blooms are of exhibition size with plenty of substance. Semi-cactus.

Plants, \$3.75

Twenty-five Percent Discount From Catalog Prices (Except Collections) On Orders Amounting To \$12.50 Or More



The World—deep magenta with silver edged petals

DOWN'S DAHLIA FARMS,
CLAYTON, N. J.

DEAR MR. DOWNS:

I believe that you would be interested to know some of the splendid results gotten from your plants this season.

We had a wonderful Garden Club show here in the new Municipal Auditorium. At this show I entered a basket of 12 Jane Cows and took not only the blue ribbon, but the purple ribbon, for the best exhibit in the show as against amateur, professional, or any variety of flower. I also took a blue ribbon on a vase of 6 Jane Cows, a blue ribbon on a vase of 3 Jane Cows, and a blue ribbon for 1 bloom autumn color. I had a number of other blue ribbon winnings, but these are the principal ones I wished to write you about. I also made a fine showing at the State Fair.

In the basket of 12 Jane Cows there was not one flower less than 10½ in., and some of them were 12 in., in diameter. Quite a few people who saw the New York show this autumn thought that my Jane Cows (rather your Jane Cows) were better than any seen there.

Please send me one of your 1932 catalogues as soon as they are out, and I am certainly going to give you a liberal order this season. Of course, surgery is my particular vocation, but I get a world of pleasure and recreation in growing about 150 dahlia plants in amateur class.

With every good wish, I am,

Cordially yours
LEGRAND GUERRY

COLUMBIA, S. C., Nov. 18, 1931



FOR YOUR CLUB !

Do you belong to a Dahlia Society or a Garden Club? There are a great many such organizations that ask us every year to donate prize awards—either roots, cash, or a trophy—to their annual flower Show. We can't afford to comply with all their requests, but we are ANXIOUS to give such prizes to any Society or Club to which many of our customers belong. So, when you order, will you please tell us the name of your Club? There's a space on the back of the order blank for that purpose. We will appreciate it. Don't overlook the "safe arrival" insurance on plant Collections at the bottom of page twelve—or the "quality insurance" on root Collection No. 4 at the bottom of page twenty-one.

PAPILLON. (Boston.) An informal decorative of old rose, with a golden suffusion. The blooms are large and borne very freely on a bush of medium height.
Roots, \$.50 each

PAUL MICHAEL. A big decorative almost the color of gold. Blooms of this variety often reach ten inches across them. A fine garden Dahlia, but not the best of keepers after being cut.
Roots, \$.50 each

POP STEWART. (F. & M.) This formal decorative is a marvel in coloring—a delicate shade of lilac-pink found in no other variety. The bush is not tall, and usually does not require staking. The centers are full, the stems are like wire, and it is one of our best keeping varieties when cut. It blooms very freely and the flowers can be made to attain great size. Taken all around, it is one of the best pink Dahlias for cutting. Certified.
Roots, \$.75

PRIDE OF THE NAVY. (Shorey.) Usually this Dahlia is light cadmium (bluish white) suffused with red, with the petals tipped white. It varies so often, however, that an accurate description is impossible. The blooms are decorative in type, finely formed, and held upright on a strong stem.
Plants, \$1.00

PRINCE OF PERSIA. (Newsom.) Red! Immense flowers—ten to twelve inches are possible—of deep, rich, glowing crimson. The blooms are carried perfectly erect on long stiff stems. The bush is vigorous and tall, with lustrous foliage. Informal decorative. Roll of Honor.
Plants, \$.50

RAY WARNER. (Peacock.) An informal decorative of beautiful clear luminous rose-pink—as beautiful in color as anything we ever saw in a Dahlia. It is a fairly good sized flower, deep, with enough substance. An early, profuse and continuous bloomer. We recommend it.
Plants, \$.50

ROBERT E. LEE. (Peacock.) Blooms galore of brilliant, glowing red—a red that stays red in the sun. The flowers are not large, but are borne abundantly on a bush of excellent habit, and each is held facing to upright on a cane-stiff stem. A Roll of Honor Dahlia and a good one.
Plants, \$2.50; Roots, \$.50

ROBERT TREAT. (Muehler.) Another red—almost the color of the American Beauty rose. The formal decorative blooms are large and are borne in profusion over a tall and vigorous plant. Florists like its color and stiff strong stem.
Plants, \$.50; Roots, \$.75

ROMAN EAGLE. (F. & M.) A formal decorative of brilliant burnished copper color—a very attractive autumn shade. The flowers are medium to large, are borne freely, and have good stems. The variety was Certified.
Roots, \$.75

SAGAMORE. (Badetty.) One of the finest golden-yellows—especially for commercial purposes. The blooms are medium large, they are borne freely, the bush is sturdy, and the stems are fair—and the flowers have good substance and will last a long time when cut. It was a Roll of Honor Dahlia.
Roots, \$.50

DOWNS DAHLIA FARMS
 CLAYTON, NEW JERSEY

Name _____

City or Town State

[illegible]

CUT OFF ON DOTTED LINE



HOW TO ORDER

The order blank was placed on the other side to make ordering easy—but if you'd rather write a letter, by all means do so.

Write it on the blank somewhere if you want your Dahlias shipped on a certain date. We will obey if possible. If you specify no date, shipment will be made when the proper planting time arrives.

Send money to pay for your order in any way convenient — check, money order, or even stamps if you like. But please don't send stamps or cash unless you send your letter by registered mail. The risk is too great.

If your order is small, the very best way to order is to combine with a friend or neighbor to make the total up to \$12.50 or more. We give a 25% discount from our catalog prices on orders of that size except on collections.

All retail orders are shipped prepaid either by express or parcel post—which ever seems best considering size of package and distance.

As explained at the bottom of page 16, we'll be glad to donate a prize award for the annual Show of any Dahlia Society or Garden Club to which many of our customers belong. Will you favor us—and possibly your Club—by filling in the lines just below when you order?

Name of Society _____

Secretary's Name

Secretary's Address _____

☐ If you have ordered either of Collections No. 1; No. 2, or No. 3, and wish to take advantage of the proposition we make at the bottom of page 12, just mark an X in the square to the left. If the square is not so marked, we will understand that you do not desire the substitution of a root for one of the plants. We reserve the right to refuse any plant order and refund your money if we believe safe delivery is improbable.

Collection No. 4 (See page 21) is one of the greatest values in our catalog. All our Dahlias—either roots or plants—are guaranteed to arrive safely, to grow, to bloom, to be true to name and to be satisfactory to you in every way.

If you ever bought anything from us that was NOT satisfactory, will you use the space below to tell us just what was wrong? On the other hand, if our stock has pleased you will you send us the names and addresses of a few friends who grow Dahlias?



Graf Zeppelin—a fine white variety

SANHICAN'S QUEEN. (Sanhican.) Shades indescribable—a blending of apricot faintly overlaid with brushings of carmine rose; the rose deepening toward the center. The plant has excellent habits, rigid stem, fine foliage; and the flowers are always tightly centered. Formal decorative—and one of our favorites. **Roots, \$1.00**

SEAL'S CALIFORNIAN. (Seal.) A beautifully formed informal decorative from California. The flower is of bronzy-buff coloring, with broad center petals slightly cupped. Stems are excellent and the habits good. **Plants, \$1.25; Roots, \$2.50**

SUPREME GLORY. (Almy.) An informal decorative of golden-yellow, with blushes of scarlet on the face of the flower and deeper and more decided scarlet tones on the reverse of the petals. An impressive Dahlia—not tall but very sturdy, heavily foliaged, and a very free bloomer. A Roll of Honor Dahlia. **Plants only, \$3.75**

TANG. (Downs Dahlia Farms.) Strikingly beautiful, with unusual color and a style all its own. Bright tawny orange flame! Long petals that roll and twist and show a golden buff reverse to such a marked degree that the flower at first appears to have two colors. A deep, full, high centered informal decorative—with a rugged bush, strong stem, and dark green foliage that pass unnoticed in the beauty of the bloom. See pictures on pages 2 and 15. **Plants, \$5.00; Roots, \$10.00**

THE WORLD. (Dahliadel.) An unusually beautiful combination of colors—rich deep rosy-magenta, overlaid garnet, with silver shadings on the edges of its petals. A formal decorative with great substance and good size. The blooms often attain eight to ten inches across them and half as deep. Bush and stems are all that can be desired. See picture on page 16. **Plants, \$1.25; Roots, \$2.50**

SALBACH'S WHITE. (Salbach.) This full deep white formal decorative has firm petal texture and good keeping qualities. These, with its fine stem and habit, make it a favorite with florists. Not very large with us last year. **Roots, \$1.00**

SANHICAN'S BLUEBIRD. (Sanhican.) An uncommon blending of violet with a bluish tint that comes nearer to blue than any other dahlia we know. The flowers are medium to large, with wire-like stems; and there is just enough kink in the petals to put it in the informal class. It is a prolific bloomer and we recommend it highly where unusual color combinations are desired. **Plants, \$.50; Roots, \$1.00**

THOMAS A. EDISON. (Dahliadel.) A formal decorative of royal purple, with staghorned petals. Cane stiff stems hold the immense flower over dark green insect resistant foliage. A Roll of Honor Dahlia. See picture on page 22. **Plants, \$2.50; Roots, \$5.00**

TREASURE ISLAND. (Dahliadel.) Color: Bright apricot, with gold and rose suffusion and shadings. Flowers are held erect on fine stems, and they carry splendid centers throughout the season. See page 12. **Plants, \$1.25; Roots, \$2.50**

TRENTONIAN. (F. & M.) A coppery-bronze decorative, held straight across the top of a cane-like stem. Petals are broad and flat and have the substance to make it an excellent keeping variety. Not a new variety—but one that still deserves a place in every garden. **Roots, \$.75**



PLANT COLLECTION No. 3

A \$20.00 Value for \$12.50

Newer varieties—one plant each of Tang (value \$5.00); Graf Zeppelin (value \$2.50); Mrs. A. B. Seal (value \$2.50); Monmouth Champion (value \$2.50); Thomas A. Edison (value \$2.50), and Dwight Morrow (value \$5.00) for \$12.50 prepaid. **BY TAKING ADVANTAGE OF THE UNUSUAL PROPOSITION AT THE BOTTOM OF PAGE 12 YOU NOT ONLY ADD AT LEAST \$2.50 TO THE VALUE OF THIS ASSORTMENT (FOR A ROOT COSTS TWICE AS MUCH AS A PLANT) BUT YOU GAIN EVEN IF PLANTS ARRIVE IN BAD CONDITION. SAFE ARRIVAL IS INSURED!**



We recommend Waldheim Sunshine. Description at Right.

VALIANT. If the perfect cactus blooms of F. W. Fellows were painted a beautiful bright red, they would be much like Valiant. Long, slender, tightly quilled petals that curve in over a center that is always full.

Roots, \$.50

WALDHEIM SUNSHINE. (Peacock.) One of our largest varieties. A huge deep yellow informal decorative, with twisted and wavy petals. It is a very prolific bloomer, and the bush and stem are excellent. See picture at left.

Plants, \$1.25; Roots, \$.250

WATCHUNG WONDER. (Smith.) When first shown in New York this spectacular red Dahlia created a sensation. It is rich royal red with a dash of gold in the center of the flower. The blooms are deep and can be grown to big diameter. Stems good; bush fairly tall; and the blooms keep well. Roll of Honor Dahlia.

Plants, \$.250

CUT WORMS: If these bother you at all, they will appear early while the Dahlia is small. You are also more likely to find them where sod has been turned under for your garden. The smaller cut worms crawl up on the plant and eat around the edges of the leaves; while the larger ones may circle the main stalk and cut their way through it. They work at night. More often than not, the damage is only temporary; for the Dahlia—either plant or root—will usually come up again from its roots. If your soil was in grass sod the year before it may be wise to broadcast poisoned bran mash over the surface before planting and after your garden has been plowed at least a week. An application of this poison is more effective if made after the sun goes down, so it will still be moist at night when the worms work. If the Dahlias are planted before you notice the worms are present, a tablespoonful around the base of each hill will do the work. The formula for poison bran is as follows: Mix one-half pound of molasses with a gallon of water. Use enough of this liquid to moisten well fifty pounds of wheat bran. Then add to the moistened bran one-half pound of Paris green by sprinkling the Paris green over the surface as the bran is stirred vigorously.

CORN EAR WORM: It is this worm that is sometimes found, in certain localities, curled up comfortably and eating the center out of a very nice bloom. One of our customers wrote to a leading experiment station about it, and kindly sent a copy of their reply to us—from which we quote that part pertaining to control: "As the pupa pass the winter in the soil, by all means the most satisfactory and practical way of controlling the pest is to plow infested land in late fall or during the winter, plowing deeply and harrowing. This will break up the pupal cells, crushing most of the pupae and exposing others to the rigors of winter to which most of them will succumb."

As the worm is curled up in the very core of the flower and protected by the petals, there seems to be no effective way to reach him with spray.

DOWN'S DAHLIA FARMS,
CLAYTON, N. J.

LOUISVILLE, KY., OCT. 19, 1931

DEAR MR. DOWNS:

As I purchased a plant of TANG from you this spring I thought you might be interested to know how it did in this section of the country this year.

Enclosed you will find a picture of Tang grown in my garden this year. The flower measured 8 3/4 x 6 when in full bloom, the plant reached a height of about five and one half feet.

As a grower of exhibition dahlias for the past eight years I consider this one a very good addition to the dahlia world.

At one time this plant had nine buds on it at once.

Yours truly,
C. C. FIDLER





POMPONS

These are miniature Dahlias identical in form to the old ball or show varieties. They are tiny in size, ranging only from one to two inches across them, with proportionate depth. They bloom profusely on low bushes, and the small flowers are fine for little bouquets, floral work and table decorations. Please note especially Little Jewell—our favorite of the lot.

ACHILLES.	Beautiful light pink, with long stems.....	\$.35
AIMEE.	A bronze variety. This, too, has good stems.....	.35
AMBER QUEEN.	Deep amber in color.....	.35
ARTIE.	Picric yellow. A vigorous grower and blooms hard.	.50
BRONZE BEAUTY.	Golden apricot. Good for cutting....	.25
BROWNIE.	Rich brownish red. Splendid form.....	.75
CLARA HARSH.	Yellow, tipped with crimson.....	.25
CLARISSA.	Pale primrose25
DEE DEE.	Perfect little blooms of lavender.....	.35
DOT.	Light yellow, suffused with rose. Dainty.....	.50
ELSIE.	Bright carmine. Very dwarf.....	.35
EUREKA.	Yellow, shading to bronze. Sometimes mottled pink	.35
FAIRY QUEEN.	Yellow, edged with carmine.....	.25
JANET.	Golden bronze35
JESSICA.	Rich golden yellow, tipped with red.....	.35
JOE FETTE.	Pure white. Good stems.....	.35
LITTLE BEAUTY.	Mauve pink.....	.35
LITTLE EDITH.	Yellow, tipped with scarlet. Perfect form and fine for cutting.....	.50
LITTLE HERMAN.	Cardinal red, tipped white.....	.25
LITTLE IKE.	Shades of red, plum and maroon.....	1.00
LITTLE JEWELL.	This is a miniature decorative rather than a pom Dahlia, and very like the large ones except for size. Grows only about two inches across and is very artistic. Bright luminous pink in color, tending lighter toward the petal tips. A profuse bloomer50
LITTLE LLOYD.	Amber shading to orange.....	.35
LITTLE PAUL.	Rose red, tipped with white.....	.50
MADELINE.	Primrose, edged rosy purple.....	.25
ROSE WILMOUTH.	Rose pink, finely formed, very dwarf..	.35
SPRIG.	Bronzey yellow, outer petals tipped reddish buff.....	.50
SUNNY DAYBREAK.	Red, edged with apricot .	.50



Note the depth of Jane Cowl bloom. See page fourteen for description and another picture of this fine Dahlia.

ROGUES GALLERY

Every year we discard many varieties to make room for the better and newer kinds added to our list. These are, frankly, not as good as those we catalog or they would not have been discarded—though many of them are still good enough for ordinary purposes. We have these stored with a few of the newer kinds that have been mixed in handling through carelessness. They will not give you satisfaction equal to our regular listed Dahlias; but if you are willing to take a chance on them they are yours at \$2.00 per dozen. We can't promise you anything about color or type; or even that they will all be different. On the other hand, you may find in them one variety alone worth more than you paid for the whole lot. No labels. If you send for these please don't order less than a dozen.



INSURED !

You will find briefly described below ten good Dahlias (Collection No. 4) that will grow almost anywhere and give you fine big blooms. We offer them to you as a collection at \$4.50 less than their total catalog prices.

(1) Jane Cowl—glistening bronzy buff; (2) Jersey's Beauty—one of the best of pink Dahlias; (3) Jersey's Beacon—a big red-orange variety; (4) Ida Perkins—a very good white; (5) Pop Stewart—beautiful pale lavender; (6) The World—shades of dark red with silver colored edges to some of the petals; (7) Glory of Monmouth; (8) Edna Ferber and (9) Sanhican's Queen are all of the bronzy autumn shades, though unlike in either color or form; and (10) Ambassador—a big shaggy Dahlia the color of peaches and cream.

QUALITY INSURANCE: One good root of each variety above, prepaid, for \$6.50. If these are not at least as fine as any tubers you ever purchased, and entirely satisfactory to you in every way when they arrive, you may keep one root (your choice), return the others at once, and your \$6.50 will be returned. Order Collection No. 4.

INSURED !



HOW TO GROW BIG DAHLIAS

[From page 5] results from chemical fertilizer can be obtained when the garden is irrigated or can be watered at will.

For Dahlias, we recommend the use of a good, well balanced garden fertilizer—one that supplies all three of the plant foods usually lacking in soil. Those plant foods are nitrogen, phosphoric acid, and potash.

To state their functions roughly, phosphoric acid tends to help the structure of the plant, greatly aiding both root and foliage growth. It hurries ripening. Potash helps to make the tubers plump and the stems stiff. It tends to slow up maturity—here balancing the action of phosphoric acid. Nitrogen is concerned with every part of the plant, for it helps to make up the protein which is the basic substance of every plant cell. This, too, tends to delay maturity. The lack of nitrogen in soil will result in smaller leaves, stems and stalks. Yet we must be careful how we feed it to our plants. For an over abundance of this food may produce in the plant a too rapid, soft growth—and weaken its resistance to disease. The analysis of the fertilizer we use is 4-8-8. That means 4% nitrogen, 8% phosphoric acid, and 8% potash. Any good brand with the same or similar analysis should be satisfactory.



Thomas A. Edison—royal purple, with stag-horned petals

Regardless of when fertilizer was used earlier, if any, we apply this to each hill when it is nearly time for the first buds to appear. A good handful is thrown upon the soil with enough force to scatter it within a foot of the base of the plant, on one side of the hill. In two weeks we make another application, on the opposite side of the plant. Two weeks later, still another—making three in all. Each application of fertilizer is followed by the cultivator to stir it with the soil. After that, the cultivator is used no more, for the bushes are beginning to bloom and cultivation is dangerous.

It is not necessary to apply the plant food in a complete fertilizer, though we recommend that method. If analysis shows your soil to be lacking in only one element, you can supply that with the more highly concentrated chemical fertilizers. Potash, for instance, can be supplied in muriate of potash or sulfate of potash. Bone meal, as mentioned earlier, is high in phosphoric acid content. So are basic slag and acid phosphate. Nitrate of soda contains nitrogen in large quantities.

We do not recommend the use of these highly concentrated fertilizers by anyone not experienced with them—especially nitrate of soda. While the harmful effects of this nitrate of soda, when used to excess, were already mentioned; it is only fair to state that in proper quantities it is distinctly a stimulant. Many wonderful Dahlias have been produced with the aid of this chemical—and many hills have been burned up.

If you feel that you must try nitrate of soda, put one and one half level teaspoonfuls in a salt shaker. Shake this quantity over the ground around one hill, taking care not to sprinkle the foliage. Begin this when the first buds are about to appear and repeat every two weeks until September first. One and one-half teaspoonfuls per hill per dose. Then cultivate it in and water well. Or you can dissolve one ounce of nitrate of soda in one gallon of water. Sprinkle from a watering can over fifty square feet of ground surface; but do not wet the foliage. If you use nitrate of soda in either manner above, you should also use another fertilizer very high in phosphoric acid content to balance the extra nitrogen and induce ripening.

—o—

Be careful about watering. The larger plants, with more leaf surface, are more likely to require water than the younger ones, for it is through the leaves that water is withdrawn from the plant. If the leaves appear limp and hang like rags, then water is needed—though this is not likely often to happen if the soil has been kept stirred. If the soil is not already moist from recent rain when fertilizer is applied, then water the Dahlias after the application of fertilizer so it can be quickly used. The Dahlia plant uses more water while blooming than at any other time.

Too often is the hose played nightly on the growing Dahlia garden, dampening a little here and a little there but really wetting nothing except the foliage. This does more harm than good, for it draws the feed roots upward

DOWNS DAHLIA FARMS,
CLAYTON, N. J.

BIRMINGHAM, ALA., AUG. 27, 1931

GENTLEMEN:

Just want to let you know how well pleased I am with "Tang." We have had a very dry and hot season in this section, however Tang came through in fine shape. I cut five blooms on the 19th, I am highly elated over your new dahlia.

Please put me on your mailing list for a catalog in the spring.

Yours truly,
J. V. THOMSON



in search of the promised moisture—which isn't there. It is surprising how long a hose must be directed on one spot for the water to equal a half inch rainfall. It is claimed that less than that does not reach the feed roots when the soil is dry. If sprinkled with the watering can, one authority states that one pailful of water to the square yard is required to be beneficial. That is equivalent to one and one-third pailfuls to the hill if Dahlias are planted three feet by four.

Irrigation is excellent for the production of fine flowers and tall bushes, for it makes more food available to the Dahlia than would be possible otherwise in dry weather. We recommend it for every garden where flowers are the major requisite.

As producers of roots for sale, however, we look upon it differently. We believe that unhealthy stock, and stock easily susceptible to disease, is far more likely to show its weakness under adverse conditions than when all its wants are fully supplied. Take "stunt" for instance—a dwarfing of growth that has long bothered some Dahlias. Certain varieties are peculiarly susceptible to it, just as some plants of any variety are less able to withstand it than other hills of the same kind. It is now generally accepted that this dwarf growth is caused by parasites that suck the sap from the growing green shoots. A strong hill will be hardly hindered; while a weak one will succumb—in dry weather. Under moist growing conditions (irrigation) water is so abundant that new sap is supplied faster than the sucking insects can drain it. The susceptibility of weak plants is therefore hidden under these ideal conditions; and the weak hill is apparently as good as any.

On the other hand, then, is it not sensible to assume that the hill that can not stand up under hardships is more SURE to be detected when grown with only the water that nature supplies? In our long periods of hot, dry weather the defective growth of such hills marks them plainly from the sturdier bushes on either side. No artificial rain has helped them hide their weakness—their lack of proper strength is ruthlessly pointed out. Nature selects for us those that should survive. **WE DIG OUT ALL OTHERS.**

For these reasons, we have no irrigation. This lack has prevented us from exhibiting in times of drouth; but we are growers rather than exhibitors, and we much prefer supplying to our customers stock with which **THEY** may win the prizes. While we recommend it highly to our customers as an aid in producing

fine blooms; we believe we can keep our stock healthier and more vigorous without it.

The soil should be stirred after every watering—and especially after every rain until the plants begin to bloom. If the soil was allowed to remain undisturbed after a rain, all the moisture would be evaporated from the surface and a crust would be formed. This crust would become cracked, and from each tiny crack the moisture would be drawn from below—robbing the plants of water. In stirring the soil with a hoe or cultivator we prevent this evaporation by turning the crust into a blanket of dust through which moisture can not easily travel upward. This is called a dust mulch. When more rain falls, the surface is again packed, and the soil must again be stirred. That is why we cultivate after every rain. In some soils, especially clay or loam, the moisture works up from below and cultivation becomes necessary to prevent a crust even when it does not rain. As the Dahlias grow, this cultivation must become more shallow to avoid injuring the expanding feed roots. Gradually they spread, and by the time the blooms begin to appear the feed roots nearly meet between the rows. From that time on the ground should not be disturbed.

After the last cultivation it is sometimes possible on small gardens to spread straw around each hill and over all the ground. This is called a straw mulch, and it replaces the dust mulch no longer possible. It protects the feed roots—now near the surface—from the hot sun, catches the rain that falls, but lets no water evaporate.

Irrigation is Good!

But we believe that when Dahlias are grown without irrigation—as we grow them—we are more likely to locate ALL weak hills that are unable to withstand the hardships Nature provides. Dwarf growth marks such hills plainly from the sturdier plants on either side. Nature selects for us those that should survive. We dig out all others. Please read the text.

Unless you intend later to collect seed, do not allow blooms to remain on the bush after they have passed their prime. If old flowers are not removed, the bush will gradually stop blooming and try to produce seed. The best time to pick the flowers is in the early morning while they are still wet with dew, but they may be picked at any time if allowed to freshen up in a cool, dark cellar. There are several ways to keep Dahlias from wilting after they have been cut. One method is called the hot water treatment. A few inches of the stems of wilting blooms are placed in water almost boiling hot. After three or four min-



INDEX TO BARGAINS: It takes confidence in our plants and in our customers to make the "heads you win—tails you win" proposition at the bottom of page 12. You save \$3.75 on plant Collection No. 1; \$1.75 on plant Collection No. 2; \$7.50 on plant Collection No. 3; and \$4.50 on root Collection No. 4. Read how Collection No. 4 is "insured"—Page 21. When your order amounts to \$12.50 or more (not counting Collections) you are entitled to a 25% discount—which gives you \$12.50 worth of stock (except collections) for \$9.38. Remember to write the name of your Club on the back of your order blank—see bottom of Page 16. If you have occasion to kick about anything bought from us, let us know.



utes they are taken out and quickly plunged deeply in cold water, where they should remain for several hours preferably in a cool dark place.

Another method is to submerge the stem, together with your hand and a knife, in a bucket or tub of water. While still under water, cut off the stem just above the lowest node, or joint. Do not draw the stem above water. Place the container holding the stems thus treated in a dark, cool spot overnight, and the freshening effect will be almost unbelievable.

If you want to save seed, let the flowers of several desirable kinds remain on the bushes. As they grow older, the centers of these blooms will open up; and the bees and the insects will carry pollen from some flowers to the stigmas of others, causing the fertilization of seed. Gently pull out the pedals, as they wither and droop, from the backs of the opening flowers—until little is left but the pod. Otherwise these wilted petals form a ball around the seed pod that holds moisture and spoils much of the seed in damp climates. When dry, the seed pod may be removed from the plant, and the seed taken out at your leisure. Keep the seed dry and do not let it freeze. While the pollenization may be done by hand, this natural method is far less trouble. Splendid results are often obtained when the varieties allowed to seed are good, and when no inferior Dahlias are growing within several hundred yards.

If you have no greenhouse in which to start the seeds, a cold frame will do. Or set a box of soil on a radiator under a window in your home. Plant them in March or April. Sprinkle the seeds on top of the soil, about a quarter inch apart—then cover them with a quarter inch of sand. Do not use more water than necessary to keep the soil just damp. Some seeds will come up within a few days, others will require weeks, and many of them will not come up at all. Transplant the seedlings into pots or flats when the first pair of true leaves appear. Later, after their roots have grown a little more and the danger of frost is over, they may be planted outside and cared for like other Dahlias. When they bloom, no two will be alike—and many will be worthless. These should be torn up and destroyed as soon as their defects appear. On the other hand, you might have something in the lot superior even to Jane Cowl or Jersey's Beauty. Don't feed your seedlings. Make them show you what they

can do under adverse conditions, and let only the fittest survive.

A week or so after frost has killed your Dahlia vines, the tops should be cut off a few inches above the ground. Tree pruners with twenty-inch handles are fine to cut these stalks. Then with a spading fork, dig up the clumps; being very careful not to break off any roots or to crack the slender neck that holds them to the stalk. If the clumps are left on top of the ground after being dug they will become dry enough to store in one or two hours of good weather.

If you have a storage room (dirt floor preferred) that does not freeze in winter or become warmer than 50 degrees, you have an ideal place to store your Dahlias. Most folks have to use their heater cellar—where the fire keeps the air too warm and too dry for Dahlias. This can be overcome to some extent by the liberal use of water. Sprinkle it on

the floor to cause evaporation whenever the air feels dry. Evaporation makes coolness. Also pour a little water occasionally right into the container that holds your clumps, and keep them covered with damp burlap bags. Examine your stock regularly. If you notice white mold, you should ventilate your pile of clumps or boxes to dry them out—for you have been using too much water. If your roots become shriveled, there is not enough humidity in the air and you should use more water.

Sometimes clumps are stored in slightly dampened peat moss, which does not dry out quickly and keeps the warm air away from the clumps. Peat is poured over a layer of clumps and the container is shaken to settle the moss snugly around the roots. This is repeated layer after layer until near the top, where more peat moss acts as a cover.

No matter how you do it, you will have some loss in storage. Conditions satisfactory to one variety will not always suit another. We lose some clumps every winter in an ideal storage cellar purposely built for Dahlias.

Please remember that we will be glad to answer any questions we can for beginners. Not only are we willing to help, but such letters give us ideas for the revision of these directions from time to time. Please also remember that we will appreciate your order. Everything you purchase from us is guaranteed to be satisfactory in every way.

Downs Dahlia Farms

Clayton, New Jersey

